

Remarks

This Application has been carefully reviewed in light of the Office Action mailed November 14, 2002. Applicants appreciate the Examiner's consideration of the Application. Although Applicants believe all pending claims are allowable over the prior art of record without amendment, to expedite issuance of the Application Applicants have made clarifying amendments to Claims 1-4, 6-29, 31, 36-37, and 39. None of these changes are considered necessary for patentability. Applicants respectfully request reconsideration and allowance of all pending claims.

The Claims are Allowable over *Henson*

The Examiner rejects Claims 1-3, 6-24, 27-39, and 42-43 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,167,383 to *Henson*. Applicants respectfully disagree.

At a minimum, *Henson* fails to disclose, teach, or suggest:

- As recited in independent Claim 1 as amended:
 - A method for configuring a product, comprising:
 - initiating a session in which a user configures a product comprising a configuration of items selected from a plurality of items;
 - generating a series of selection option sets, each selection option set comprising one or more items;
 - for at least one of the series of selection option sets, applying an optimization function with respect to each item in the selection option set to identify an item of the selection option set as a default selection, the default selection being optimal among the one or more items of the selection option set with respect to the optimization function;*
 - providing for presentation to the user the series of selection option sets, including the selection option set comprising the identified default selection;*
 - accepting from the user a selection of an item for each of the series of selection option sets; and
 - determining a configuration for the product in accordance with the selections of the items from the series of selection option sets.

- As recited in independent Claim 10 as amended:
A method for configuring a product, comprising:
providing for presentation to a user a series of selection option sets,
each selection option set comprising one or more items;
for each selection option set, before presenting the selection option set to the user, determining which of the items of the selection option set are actually available to the user in accordance with a user-specified date constraint and presenting only those items of the selection option set which are actually available to the user in accordance with the user-specified date constraint;
for at least one of the selection option sets, identifying as a default selection an item that provides an optimized result according to a preselected optimization function; and
for each selection option set, accepting a selection of an item from the user.

- As recited in independent Claim 20 as amended:
A system for configuring a product, comprising:
a configuration engine operable to:
communicate with a user interface operable to display a plurality of lists of items to a user and to accept a plurality of selections from the user, each list comprising one or more items, at least one list comprising a default item; and
generate the lists of items according to stored configuration information; and
an available to promise engine operable to:
store information regarding availability of the items in the lists of items generated by the configuration engine; and
for each list of items generated by the configuration engine, return to the configuration engine a list of one or more of the items which are actually available to the user in accordance with a user-specified date constraint;
the default item for the at least one list being determined by applying an optimization function to the returned list of one or more of the items which are actually available to the user in accordance with the user-specified date constraint, the default item for the at least one list being optimal among the one or more items in the at least one list with respect to the optimization function.

- As recited in independent Claims 28 as amended, which recites limitations substantially similar to those recited in Claim 36 as amended:

A method for configuring a product, comprising:
initiating a session in which a user configures a product, the product comprising a configuration of items selected from a series of lists, each list comprising one or more items selected from a plurality of items;
for at least one of the series of lists, applying an optimization function with respect to each item in the list to identify a default selection comprising an item of the list that optimizes the optimization function relative to any other items in the list;
providing for presentation to the user the list comprising the one or more items and including the identified default selection for the list; and
determining a configuration for the product in accordance with the selection of items from the series of lists.

In contrast, *Henson* discloses nothing whatsoever regarding an optimization function, much less the optimization functions and associated operations specifically recited in Applicants' independent claims.

Also in contrast to independent Claims 10 and 20, and dependent Claims 2, 31, and 39, *Henson* discloses providing to the user a warning indicator to indicate an option which, if already selected or selected in the future by the user, would represent an invalid configuration or would adversely impact a shipment or delivery date of the configured product. Using the system disclosed in *Henson*, as clearly illustrated in Figure 4, the user is presented with all options and remains free to at least initially select any of these options. As just a few examples, *Henson* discloses the following:

- The validation module provides validation of some form with respect to the customer built configuration. The shipment delay indicator provides the customer with any lead time warnings or shipment delays which would occur as a result of the selection of specific options. (Column 6, Lines 36-38)
- With respect to the lead time or shipment delay module 32, a long lead time warning is provided with the use of a warning icon. . . . The warning icon is presented to the online shopper upon the selection of a system option that has been identified as having a significant impact on the time to delivery of the system of interest. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons.

The presentation of the warning is in two parts. A first part includes a general alert 80 to the presence of any number of potentially problematic options, the general alert being displayed on the web page, for example near the top of the page. Secondly, a long lead time icon 82 is displayed adjacent to each long lead time option's position in the configurator. Options are manually identified as worthy of a long lead time warning via entry of a flag in an item master record of the store product database 24. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. (Column 6, Lines 44-67)

- [A] lead time delay indicator provides the customer with an indication that a particular chosen option and/or combination of options will result in a shipment delay, and may further include an indication of a certain amount of time for a delay. In other words, the shipment delay indicator provides the customer with advance notice that a particular selected option or options will result in a shipment delay. (Column 7, Lines 2-9)
- The shipment or lead time delay indicator of the present embodiment advantageously provides an advance or early indication to the customer of a potential shipment delay which could occur as a result of having selected a particular option. The customer thus does not have to wait until after having submitted the order, but rather can find out about any shipment delays as the customer is configuring and/or building his particular computer system online. (Column 7, Lines 13-20)
- The on-line store further includes validation of a configuration built by a customer. Validation (or compatibility) provides the customer with a validation message indicating an occurrence of when the options selected for a particular system are not correct. If the options selected for a particular system will adversely affect the shipment of the configured system, then a warning message is issued to enable the user to modify options accordingly. In other words, the validation enhancement lets the customer know when one or more options are not compatible for one reason or another. The validation enhancement includes built-in logic which checks the particular configuration built by the customer and indicates whether or not the selected options can be built together for the particular configuration. If two or more options are incompatible, then in one embodiment, the validation enhancement returns a message indicating that the options are incompatible, as further referenced herein. (Column 7, Line 52 – Column 8, Line 6)
- With respect to validation 34, a system option compatibility warning is issued, similar to the long lead time warning. . . . The system option compatibility warning icon is presented to the online shopper when a system option identified as having an incompatibility with another system option is recognized as a customer selection. Again, the warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through the clicking on any of a number of store navigation or action buttons. The presentation of the warning is in two parts. First, a general alert 84 to the presence of any number of potentially problematic system options is displayed on the web page, for example, near the top of the page. Secondly, an option

compatibility icon 86 is displayed adjacent to each potentially incompatible option's position in the configurator. (Column 8, Lines 7-24)

- Validation of a customer built system assists in increasing a customer order compliance on the part of the on-line store. Those orders which do not comply (i.e., orders for systems which for one reason or another cannot physically be built) are advantageously managed down to a significantly lowered percentage of occurrences than previously achievable. Customers of the on-line store application thus receive advance warning when an option will not work for a given configuration. The customer can then modify, change, and/or delete the particular option which gave rise to the validation warning. (Column 8, Lines 45-55)
- In operation, the online store includes an ability to recognize which customer set that a customer who accesses the online store is in, i.e., upon accessing the welcome page of the online store. Upon a recognition of the customer belonging to a particular customer set, the customer gets a store specific to the given customer. Customer set refers to a particular company, organization, or individual, thus there can be many customer sets. Part of the store differences is that the configurator determines what part of the online store does the customer get to see. The welcome page defines what products does the store allow the customer to see. The configurator determines which options the customer is allowed to look at within a given system (as chosen per the welcome page), merchandising options, what are allowed options, etc. (Column 14, Lines 4-18)
- The underlying feature here is that a flag is being set to indicate that the selection of a particular option will result in a lead time greater than a normal lead time, according to a particular customer set.
One difference between a compatibility warning (green check mark) and a long lead time warning (yellow exclamation mark) is that the option compatibility warning preferably provides an option compatibility warning message that is not generic. In other words, the option compatibility warning is preferably specific to the option or options which the user has selected. The long lead time warning indicates that there is an option on a long lead time. The long lead time warning preferably includes an icon and a message at a general level (e.g., "there are four warnings below") at a prominent location on the web page. A user would then scroll down the web page to find out which of the selections have long lead time warnings. For each option with a long lead time icon, the icon may be accompanied with a warning message that is specific to that option. (Column 15, Lines 5-24)

Additionally, Applicants' dependent claims are allowable based on their dependence on the independent claims and further because they recite numerous additional patentable distinctions over the prior art. Because Applicants believe they have amply demonstrated the allowability of the independent claims over the prior art, and to avoid burdening the record, Applicants have not provided detailed remarks concerning the dependent claims. However, Applicants remain ready to provide such remarks if it becomes appropriate to do so.

For at least these reasons, Applicants respectfully request reconsideration and allowance of independent Claims 1, 10, 20, 28, and 36 and all claims that depend on these claims.

The Claims are Allowable Over *Henson* in view of *Kennedy*

The Examiner rejects Claims 4, 25-26, and 40-41 under 35 U.S.C. § 103(a) as being unpatentable over *Henson* in view of U.S. Patent 6,188,989 to Kennedy ("*Kennedy*"). Applicants respectfully disagree.

First, as shown above, *Henson* does not "substantially disclose the claimed invention," which cannot properly be reduced to "determining long lead times and warning users that a selected configuration is not available or will be delivered much later than another configuration" as the Examiner suggests. (Office Action, Page 4) Second, not only is *Henson* "silent regarding an optimization function that minimizes prices or maximizes profits" as the Examiner acknowledges, *Henson* discloses nothing whatsoever regarding an optimization function, much less the optimization functions and associated operations specifically recited in Applicants' claims. Third, even assuming for the sake of argument that the Examiner's characterization of *Kennedy* is correct and that *Kennedy* could be properly combined with *Henson*, the proposed *Henson-Kennedy* combination still would not disclose, teach, or suggest the optimization functions recited in dependent Claims 4, 25-26, and 40-41, which must be considered in light of the optimization functions and associated operations specifically recited in independent Claims 1, 20, and 36 on which those claims depend, respectively.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 4, 25-26, and 40-41.

Conclusion

Applicants have made an earnest attempt to place this Application in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Christopher W. Kennerly, Attorney for Applicants, at the Examiner's convenience at (214) 953-6812.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Appendix A

Mark-Ups Reflecting Changes to Specification

On Page 1, the existing title has been amended as follows:

Configuring Products with Default Selections Determined According to Optimization Functions [System and Method for Promising Delivery of Configured Products with Selected Optimization]

Appendix B
Mark-Ups Reflecting Changes to Claims

1. **(Amended)** A method for configuring a product, comprising:
initiating a session in which a user configures a product comprising a configuration of items selected from a plurality of items;
generating a series of selection option sets, each selection option set comprising one or more items [at least one item and generated in accordance with a selection of an item by the user from a previous selection option set];
for at least one of the series of selection option sets, applying an optimization function with respect to each item in the selection option set to identify[ing] an item of [a] the selection option set as a default selection, the default selection [optimizing an] being optimal among the one or more items of the selection option set with respect to the optimization function;
providing for presentation to the user the series of selection option sets, including the selection option set comprising the identified default selection;
accepting from the user a selection of an item [from one or more] for each of the series of selection option sets; and
determining a configuration for the product in accordance with the selections of the items from the [one or more] series of selection option sets.
2. **(Amended)** The method of [claim] Claim 1, wherein each selection option set presented to the user is checked before presentation to confirm that all items in the selection option set are actually available to the user in accordance with a user-specified date constraint.
3. **(Amended)** The method of [claim] Claim 1, wherein identifying an item of the selection option set as a default selection comprises identifying [a default selection which] the item that provides an optimized fit according to the optimization function.

4. **(Amended)** The method of [claim] Claim 1, wherein the optimization function maximizes manufacturer profit.

6. **(Amended)** The method of [claim] Claim 1, wherein the [default selection comprises an item having a low price] optimization function minimizes price to the user.

7. **(Amended)** The method of [claim] Claim 1, wherein the optimization function is defined during the session.

8. **(Amended)** The method of [claim] Claim 1, wherein the optimization function is defined in response to an identification of the user.

9. **(Amended)** The method of [claim] Claim 1, wherein the optimization function is defined in response to a product selection decision made by the user.

10. (Amended) A method for configuring a product, comprising:
providing for presentation to a user a series of selection option sets, each selection option set comprising one or more items [an item, each selection option set generated in accordance with a selection of an item by the user from a previous selection option set];
[for at least one of the selection option sets, identifying a default selection;]
for each selection option set, before presenting the selection option set to the user, determining which of the items of the selection option set are actually available to the user in accordance with a user-specified date constraint and presenting only those items of the selection option set which are actually available to the user in accordance with the user-specified date constraint;
for at least one of the selection option sets, identifying as a default selection an item that provides an optimized result according to a preselected optimization function; and
for each selection option set, accepting a selection of an item from the user; and
for the at least one selection option set for which a default selection is identified, selecting as the default selection an item which is actually available to the user and which provides an optimized result according to a preselected optimization function].

11. (Amended) The method of [claim] Claim 10, further comprising:
before any selection option sets are presented to the user, defining configuration information to provide the series of selection option sets to be presented to configure the product; and
within the determining step, determining which of the items in the defined configuration information are actually available to the user.

12. (Amended) The method of [claim] Claim 11, further comprising:
as selections are made by the user, adding one or more constraints to later presented selection option sets; and
within the determining step, determining which of the items [are] in the defined configuration information[,] meet the one or more constraints added by user selections[,] and are actually available to the user.

13. **(Amended)** The method of [claim] Claim 10, wherein the preselected optimization function is selected during a session with the user in which the product configuration is performed.

14. **(Amended)** The method of [claim] Claim 13, wherein the preselected optimization function is selected as a function of an identity of the user.

15. **(Amended)** The method of [claim] Claim 13, wherein the preselected optimization function is selected by the user.

16. **(Amended)** The method of [claim] Claim 10, wherein the default selection provides an optimized result according to a second optimization function **[and according to the first] in addition to the preselected** optimization function.

17. **(Amended)** The method of [claim] Claim 10, wherein the preselected optimization function comprises a function which minimizes price to the user.

18. **(Amended)** The method of [claim] Claim 10, wherein the preselected optimization function comprises a function which maximizes profit to a manufacturer.

19. **(Amended)** The method of [claim] Claim 10, wherein the preselected optimization function comprises a function which minimizes time to delivery of the product.

20. (Amended) A system for configuring a product, comprising:
a configuration engine operable to:
communicate with a user interface operable to display a plurality of lists of items to a user and to accept a plurality of selections from the user, **each list comprising one or more items, [for] at least one list comprising a default item [being indicated to the user]; and**
generate the lists of items **according to stored configuration information [, each list of items generated in accordance with a selection by the user from a previous list of items]; and**
an available to promise engine operable to:
store information [indicating item availability] **regarding availability of the items in the lists of items generated by the configuration engine; and**
for each list of items generated by the configuration engine, return to the configuration engine a list of one or more of the items which are actually available to the user in accordance with a user-specified date constraint;
[provide the lists of items to the user interface for display,]
the default item **for the at least one list** being determined by applying an optimization function to the [item availability information] **returned list of one or more of the items which are actually available to the user in accordance with the user-specified date constraint, the default item for the at least one list being optimal among the one or more items in the at least one list with respect to the optimization function.**

21. (Amended) The system of [claim] **Claim** 20, wherein[:] the configuration engine is operable to determine the lists of items in response to selections made by the user[; and
the available to promise engine:
comprises information regarding availability of the items determined by the configuration engine;
comprises information for each item used in applying the optimization function to the available items; and
is operable to return to the configuration engine a list of items which are actually available to the user].

22. **(Amended)** The system of [claim] Claim 21, wherein the configuration engine is operable to apply the optimization function to the list of actually available items returned from the available to promise engine.

23. **(Amended)** The system of [claim] Claim 21, wherein the available to promise engine is operable to:

apply the optimization function to the items which are actually available before returning the list to the configuration engine; and

identify the default item when the list of actually available items is returned.

24. **(Amended)** The system of [claim] Claim 21, wherein:

for each list of items to be displayed to the user, the configuration engine is operable to pass to the available to promise engine a list of proper configuration items; and

for each list of proper configuration items, the available to promise engine is operable to:

determine which items are actually available to the user;

apply the optimization function to each available item; and

return to the configuration engine a list of available items and an identification of which item best matches the optimization function.

25. **(Amended)** The system of [claim] Claim 20, wherein the optimization function comprises a function for minimizing product price.

26. **(Amended)** The system of [claim] Claim 20, wherein the optimization function comprises a function for maximizing profits.

27. **(Amended)** The system of [claim] Claim 20, wherein the optimization function comprises a function for minimizing delay until the product is available.

28. **(Amended)** A method for configuring a product, comprising:

initiating a session in which a user configures a product, the product comprising a configuration of items selected from a series of lists, each list comprising one or more items selected from a plurality of items;

[receiving from the user a selection of an item from a current list comprising one or more items;

generating a next list comprising one or more items in accordance with the selection of the item from the current list;]

for at least one of the series of lists, applying an optimization function with respect to each item in the list to identify[ing] a default selection comprising an item of the [next] list that optimizes [an] **the optimization function relative to any other items in the list;**

providing for presentation to the user the [next] list comprising the one or more items **[having] and including** the identified default selection **for the list;** and

determining a configuration for the product in accordance with the selection of items from the **series of** lists.

29. **(Amended)** The method of Claim 28, further comprising repeating the following for each list of the series of lists until a last list is reached:

receiving from the user a selection of an item from a current list comprising one or more items;

generating a next list comprising one or more items in accordance with the selection of the item from the current list;

applying an optimization function with respect to each item in the next list to identify[ing] a default selection comprising an item of the next list that optimizes the optimization function **relative to any other items in the next list;** and

providing for presentation to the user the next list comprising the one or more items **[having] and including** the identified default selection **for the next list.**

30. The method of Claim 28, wherein generating the next list comprises:
determining a valid item configuration for the product in accordance with the selection of the item from the current list and in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only one or more items of the valid item configuration.

31. **(Amended)** The method of Claim 28, wherein generating the next list comprises:
determining one or more items of the next list that are **actually** available to the user in accordance with a **user-supplied date** constraint restricting selection of an item for the product; and
generating the next list comprising only the one or more items of the next list that are **actually** available to the user in accordance with the **user-supplied date** constraint restricting selection of an item for the product.

32. The method of Claim 28, wherein the optimization function comprises a function for minimizing product price.

33. The method of Claim 28, wherein the optimization function comprises a function for maximizing profits.

34. The method of Claim 28, wherein the optimization function is selected as a function of an identity of the user.

35. The method of Claim 28, wherein the optimization function is selected by the user.

36. **(Amended)** A system for configuring a product, the system comprising one or more software components embodied in computer-readable media **[and] that** when executed **are collectively** operable to:

initiate a session in which a user configures a product, the product comprising a configuration of items selected from a series of lists, each list comprising one or more items selected from a plurality of items;

[receive from the user a selection of an item from a current list comprising one or more items;

generate a next list comprising one or more items in accordance with the selection of the item from the current list;]

for at least one of the series of lists, apply an optimization function with respect to each item in the list to identify a default selection comprising an item of the **[next]** list that optimizes **[an] the** optimization function **relative to any other items in the list;**

provide for presentation to the user the **[next]** list comprising the one or more items **[having] and including** the identified default selection **for the list;** and

determine a configuration for the product in accordance with the selection of items from the **series of** lists.

37. **(Amended)** The system of Claim 36, operable to repeat the following for each list of the series of lists until a last list is reached:

receiving from the user a selection of an item from a current list comprising one or more items;

generating a next list comprising one or more items in accordance with the selection of the item from the current list;

applying an optimization function with respect to each item in the next list to identify**[ing]** a default selection comprising an item of the next list that optimizes the optimization function **relative to any other items in the next list;** and

providing for presentation to the user the next list comprising the one or more items **[having] and including** the identified default selection **for the next list.**

38. The system of Claim 36, operable to generate the next list by:
determining a valid item configuration for the product in accordance with the selection of the item from the current list and in accordance with a constraint restricting selection of an item for the product; and
generating the next list comprising only one or more items of the valid item configuration.

39. **(Amended)** The system of Claim 36, operable to generate the next list by:
determining one or more items of the next list that are actually available to the user in accordance with a user-supplied date constraint restricting selection of an item for the product; and
generating the next list comprising only the one or more items of the next list that are actually available to the user in accordance with the user-supplied date constraint restricting selection of an item for the product.

40. The system of Claim 36, wherein the optimization function comprises a function for minimizing product price.

41. The system of Claim 36, wherein the optimization function comprises a function for maximizing profits.

42. The system of Claim 36, wherein the optimization function is selected as a function of an identity of the user.

43. The system of Claim 36, wherein the optimization function is selected by the user.